IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) An sample collection vessel assembly for chromatographic systems, comprising:

a vessel extender, attached to a collection vessel, so that a mobile phase flow stream enters the vessel extender and fills the collection vessel,

wherein the vessel extender provides a volumetric capacity to hold the mobile phase flow stream beyond the volumetric capacity of the collection vessel.

2. (Previously Presented) The collection vessel assembly of claim 1, wherein the vessel extender comprises a mouth at an attachment end of the vessel extender meets a mouth at an attachment end of the collection vessel to provide a flow path for the mobile phase flow stream to enter the collection vessel.

3. (Previously Presented) The collection vessel assembly of claim 1, wherein the vessel extender sealably attaches to the collection vessel with a threaded connection.

4. (Previously Presented) The collection vessel assembly of claim 1, wherein the vessel assembly sealably attaches to the collection vessel with an external coupling.

5-9 (cancelled)

10. (Previously Presented) The collection vessel assembly of claim 1, wherein the vessel extender is fabricated from inert material that is not significantly hydroscopic.

11. (Previously Presented) The collection vessel assembly of claim 10, wherein the fabrication material includes plastic such as one of the following: polytetrafluoroethylene, polymer, polypropylene, polyethylene, or polyurethane.

12. (Currently Amended) A collection vessel assembly, comprising:

a collection vessel for collecting liquid phase from a chromatographic mobile phase flow stream;

a vessel extender container comprising a hollow cylindrical body with an open top end that receives liquid phase from a mobile phase flow stream and an open bottom end that is [[,]] sealably attached to the collection vessel, such that the vessel extender container and collection vessel form a single sample collection unit container,

wherein the unit container forms a flow path for the liquid phase to flow through the vessel extender container and into the collection vessel, and

wherein the ~~vessel extender~~ unit container is sealably attached to provides ~~volumetric~~ storage ~~capacity for~~ of the liquid phase ~~beyond the volumetric capacity of~~

~~the collection vessel~~ into the extended vessel container.

13-16 (cancelled)

17. (New) The collection vessel assembly of claim 1, wherein the vessel extender has a diameter of a bottom end of the extender of diameter of an open top end of the collection vessel.

18. (New) The collection vessel assembly of claim 1, wherein the collection vessel assembly is formed to maintain a footprint of the collection vessel alone such that the assembly can be used in automated laboratory devices that are fitted for a collection vessel throughout a chromatography purification process.

19. (New) The collection vessel assembly of claim 1, wherein the collection vessel is formed as a straight-walled cylindrical container, and

the vessel extender is formed as a straight-walled cylindrical container.

20. (New) The collection vessel assembly of claim 12, wherein the vessel extender container has a diameter of the open bottom end of an approximate diameter of the open top end of the collection vessel.

21. (New) The collection vessel assembly of claim 12, wherein the collection vessel assembly is formed to maintain a footprint of the collection vessel alone such that the assembly can be used in automated laboratory devices that are fitted for a collection vessel throughout a chromatography purification process.

22. (New) The collection vessel assembly of claim 12, wherein the collection vessel is formed as a straight-walled cylindrical container, and

the vessel extender container is formed as a straight-walled cylindrical container.

23. (New) A device, comprising:

a cylindrical collection vessel comprising a cylindrical body with an open top end and a closed bottom end;

a cylindrical vessel extender container comprising a cylindrical body with an inner diameter ID of a greater diameter than the collection vessel ID, an open top end, and an open bottom end that is sealably attached to the open top end of the collection vessel creating a single collection container unit,

wherein the cylindrical body and the open top end of the extender container are formed to connect to an automated liquid fraction collector in a chromatography system to receive liquid phase fractions into the collection container unit.

24. (New) The device of claim 23, wherein the inner walls of the open bottom end of the extender container are sloped towards an opening with a smaller diameter than the ID of the extender container body.

25. (New) The device of claim 23, wherein the collection container unit is formed to maintain a footprint of the collection vessel alone such that the assembly can be used in the automated liquid fraction collector.

26. (New) The device of claim 23, wherein a connection between the collection vessel and the vessel extender container is sealably attached to contain the liquid phase fractions when the container unit is filled will the liquid phase fractions.